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TIME- AND LABOR-SAVING EQUIPMENT FOR THE LAYING HOUSE

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There are four principal routine activities in the care of layers: feeding, watering, gathering the eggs, and removing droppings and floor litter. Any equipment that makes these operations less burdensome is desirable, and, too, any time or labor saved reduces the cost of producing each dozen eggs. Poultry house equipment which adds satisfaction to the work will generally mean better care of the layers. The equipment and devices discussed have been designed to serve these purposes.

FEEDERS FOR LAYERS

Properly designed, well-made feeders and plenty of them will often yield the poultryman more satisfaction and have a more direct effect upon the net returns from his flock than any other equipment in the laying house.

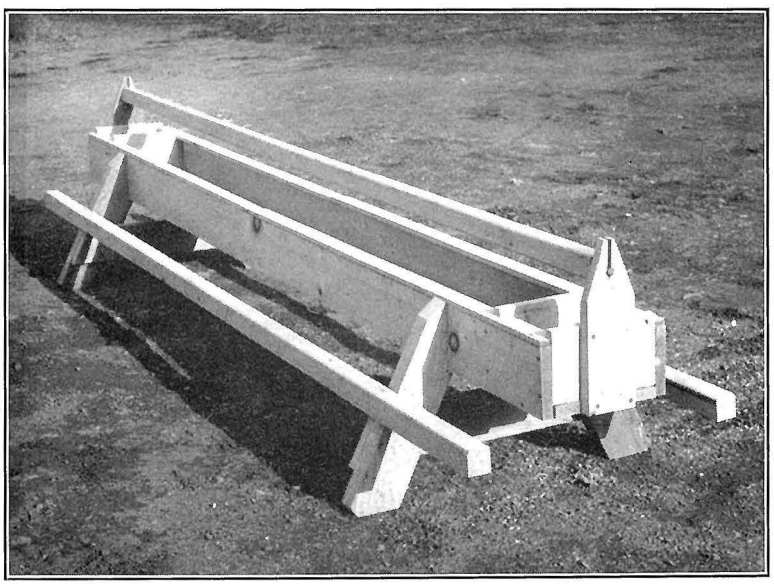

Fig. 1.—New design mash feeder for layers

The improved feeder described has many advantages over older or poorly designed feeders. The new feeder is simple, easy to make, inexpensive, and, in addition, gives the birds ready access to the last bit of feed. These feeders do not hold too much feed, as did those of 10 to 15 years ago. The wider, deeper feeders were proved unsatisfactory when it was learned that fresh mash should be fed one to three times daily in the amount that will about be consumed before the next feeding period. The stale mash in the bottom of the

larger box feeders often became moldy and totally unfit for feed. This condition is avoided by more frequent feeding of fresh mash in limited amounts and the ease with which the birds can clean up the mash from the bottom of a box feeder not more than 4 inches deep and 8 inches wide inside. Each 100 layers require two feeders 8 feet long.

The use of droppings pits with roosts 12 to 18 inches above the floor makes it desirable to place the feeders as close to the floor as possible, to discourage the birds from roosting on the feeder stands, but the feeders should not be so low that the birds will scratch floor litter into them.

To prevent contamination of the feed and the edges of the feeder box from dirt on the bird's feet, the tops of the 2- by 2-inch poles upon which the birds stand while eating are placed 6 inches below the top of the feeder box and 4 inches out from the sides of the feeder, so that the birds have to stand on both feet. The bird is then in a good position to eat from a feeder box 4 inches deep and 8 inches wide inside. With the bird's body in this lower position, there is less chance for the loss of liquid contents from the crop while the bird is eating.

Figure 1 shows the new feeder designed by the Ohio Agricultural Experiment Station. The feeder box is 4 inches deep and 8 inches wide and is equipped with a 2- by 2-inch revolving pole. Plaster laths extending three-fourths of an inch inside are placed on the top edges of the feeder to prevent

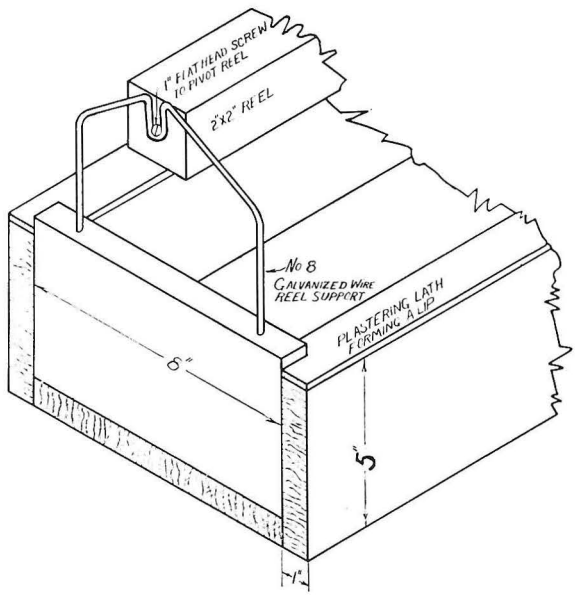

Fig. 2.—Construction details of feeder box

waste of feed. A 6-inch compartment is provided on each end, one for oyster shells or limestone grit and the other for granite or quartz grit. The revolving pole is supported by slotted wood ends or by brackets made of No. 6 or 7 galvanized steel wire (fig. 2). As the wire needed for brackets is often unavailable and difficult to use, the wood ends will generally be used. Either

the wire brackets or wood ends are made to give 3 inches of clearance between the top of the feeder and the bottom of the revolving pole. The feeder stand consists of four 2- by 4-inch pieces 16 inches long with ends tapered to fit the box and give a level footing on the floor. A notch is made in the legs to receive the standing poles so that the top of the pole will be 6 inches below the top edge of the feeder box and 4 inches from the side. The 1- by 4-inch cross-pieces are 25 inches long and tie the legs together. The top edges of the one-by-fours extend to the outer edges of the standing poles and are placed firmly against the bottoms of the standing poles. The outside spread of the legs at the bottom is about 25 inches. The tops are about 9½ inches apart to receive the feeder box.

Some poultrymen may prefer to support the feeder box and standing poles with two two-by-fours 18 inches long and two two-by-sixes 30 inches long placed edgewise and across 1 foot from each end of the feeder (fig. 3). The two-by-fours placed above the two-by-sixes are beveled from 18 inches at the bottom to the width of the feeder box, or about 10 inches at the top, to support the feeder. In addition to nailing the bottom of the feeder to the supports, it is well further to brace each support to the box with an 8-inch shelf bracket.

Fig. 3.—Feeder with cross supports of two-by-fours and two-by-sixes and wire brackets for revolving pole

The list of materials for the 8-foot feeder shown in figure 1 (lumber should be white pine, spruce, or redwood) is:

One 1-inch by 8-inch piece, 8 feet long, for the bottom (or one 1-inch by 8-inch piece, 10 feet long, will serve for bottom and both ends)
Two 1-inch by 8-inch pieces, 1 foot long, slotted ends
Two 1-inch by 5-inch pieces, 8 feet long, for sides (or one 1-inch by 10-inch piece, 10 feet long, would make both sides and ends for wire supports.)
Two 1-inch by 5-inch pieces, 8 inches long, ends for wire supports
One 2-inch by 2-inch piece, 8 feet long, for revolving pole*

*2- or 3-inch galvanized spouting or rainpipe with wood ends can also be used.

Two 2-inch by 2-inch pieces, 8 feet long, for standing poles
Four 2-inch by 4-inch pieces, 16 inches long, for legs of feeder
Two 1-inch by 4-inch pieces, 25 inches long, for ties across the bottom of the legs
One piece of galvanized steel No. 6 or 7 gauge wire if bracket supports are used for revolving pole
Two No. 10 flat-headed screws 2½ inches long for axles of revolving pole

WATERING DEVICES

Fresh clean water is one of the major requirements of layers. If at all possible, the poultryman should have running water in the laying house. One water trough installed in the partition (fig. 4) will serve two pens of one to three hundred layers each, and the watering should not involve more than 2 minutes of the caretaker's time daily. Any time beyond 1 to 2 minutes per 100 layers daily should be considered wasted, a needless cost added to the cost of each dozen eggs produced.

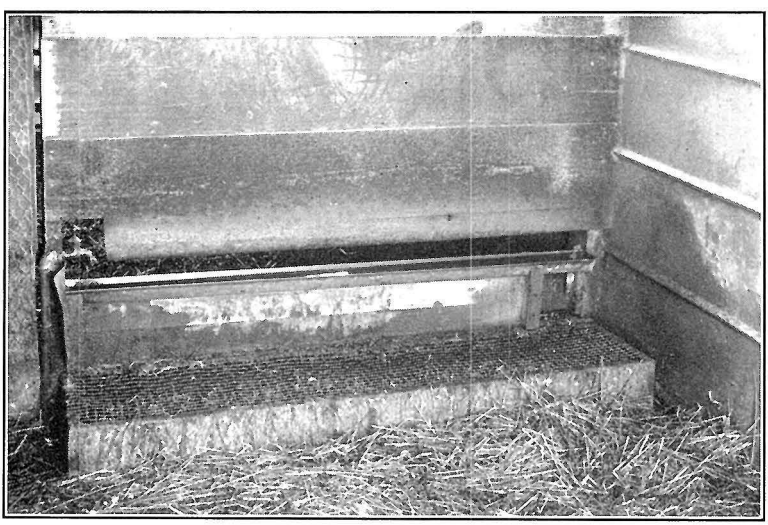

Fig. 4.—Trough watering device in partition

There are many satisfactory watering devices (for water under pressure) from which the poultryman can choose the one best suited to his particular needs. There are, however, three requirements for watering equipment: It must be easy to clean and flush. This requirement necessitates a 3- or 4-inch drain connection to carry waste water 15 to 20 feet or more outside the building to a rock drain well or other means of drainage. The equipment must be provided with some means of keeping the floor litter dry. The device should be simple and involve a minimum of expense. The devices shown in figures 4 and 5 were designed to meet these requirements.

The trough watering device shown in figure 4 is especially adapted for installation in a partition to serve two pens. To simplify drainage connection, the drain end of the trough should be close (1 to 3 feet) to the front outside wall. A desirable size of trough is 3 inches wide and 2½ inches deep. The length will be in proportion to the number of layers to be served. Troughs 4, 6, 8, and 10 feet long will serve 100, 150, 200, and 250 layers, respectively, on each side of the partition. The water is delivered under pressure at one end of the trough and controlled by a float valve or by drip from the faucet. A drain opening ¾ to 1 inch in diameter is provided at the other end of the trough over the drain pipe. The drain is equipped with a rubber grommet through which passes a rubber or glass overflow tube which determines the depth of water in the trough and carries overflow water to the drain below. It is desirable to maintain about 1 inch of water in the trough. To clean the trough, the overflow drain is lowered or removed, the water is turned on at the other end to flush out the trough, and a suitable brush is used to clean the trough.

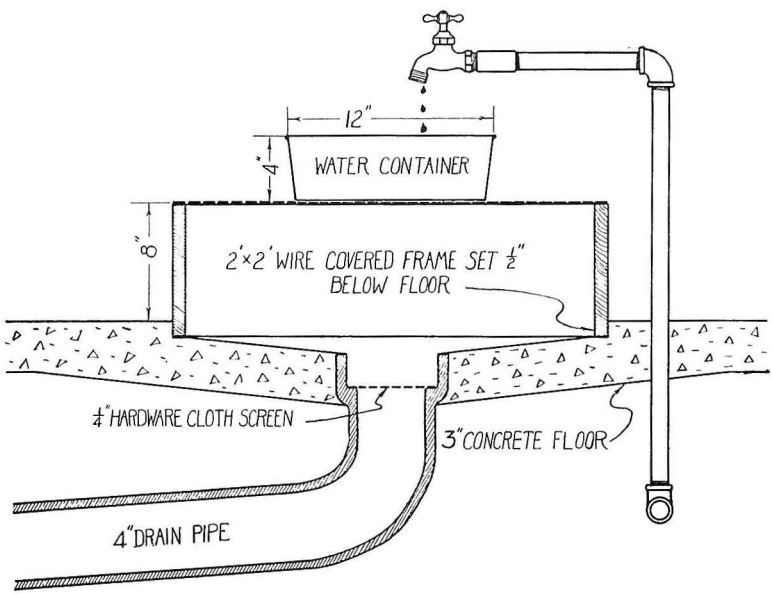

Fig. 5.—Pan watering device

The floor litter near the water trough is kept dry by the use of removable wire frames on each side of the water trough. These frames are made of 1- by 6-inch pieces edgewise covered with ¾-inch mesh woven wire or 1- by 2-inch mesh No. 14 gauge welded wire. The frames are 10 inches wide and long enough to reach the wall and 8 inches beyond the faucet end of the trough to prevent the birds from drinking from the end of the trough while standing on the floor. If a shield is used at the end of the trough, as shown in figure 4, the frame can be made the same length as the water trough. Where the frames are on concrete, the floor below can be sloped to the drain to carry off

the waste water. On a wood floor, the frames can be set in a galvanized pan with sides 1 inch high and just large enough to receive the frames. The pan is equipped with a nipple 1 inch in diameter extending an inch below the bottom to carry the waste water into the drain pipe.

The partition board is placed above the top of the trough so that there is a clearance of 2 inches for drinking space on each side. The edge of the trough is 14 inches above the floor.

The pan watering device shown in figure 5 will serve 100 to 200 layers in one pen, or, if installed in a partition, 100 layers on each side. This device is well adapted for use in a single pen where there are not more than 200 layers.

The watering devices described so far are for water under pressure. Many poultrymen do not have running water available, however, and others must shut theirs off during the winter. For them, and for the small flock of layers, the 10-, 12-, or 14-quart galvanized iron pail water stand shown in figure 6 continues to be one of the best solutions of the watering problem. The pail is a convenient means of carrying the water to the layers, is easy to clean, and is easily emptied at night to prevent freezing. When warm or hot water is available, the insulated water pail (fig. 7) can often be used to advantage. A 10- or 12-quart pail will serve 25 to 50 layers, and a 14- or 16-quart pail will serve 50 to 100. Where larger numbers are to be served, the water stand can be made to accommodate two or three pails.

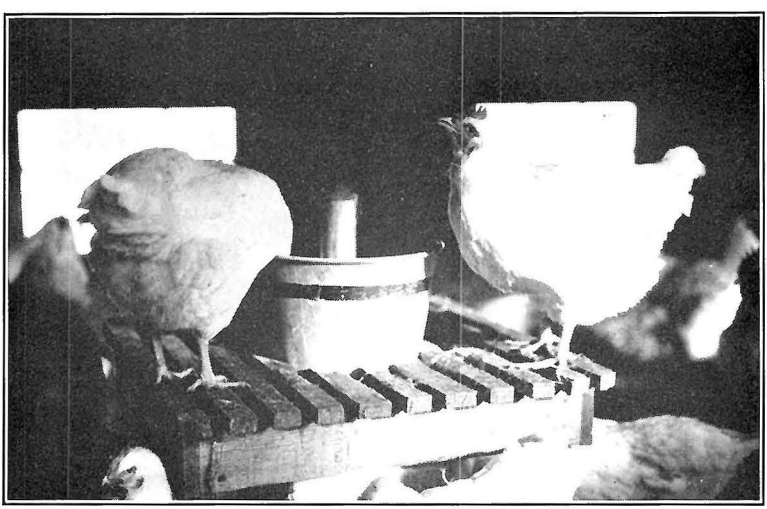

Fig. 6.—Galvanized water pail and stand

WARM WATER FOR WINTER LAYERS

Warm water is highly desirable for winter layers, and in uninsulated laying houses, it is often necessary to provide warm water to prevent freezing. The insulated water pail is a valuable aid under such conditions. The pail can be filled in the morning with warm water (as warm as one can hold a finger in

for half a minute), and at noon, more hot (even boiling) water can be added. Thus the layers can have warm water throughout the coldest days without the use of a special water heater.

Fig. 7.—Warm water device

The insulation box for the water pail shown in figures 7 and 8 is simple to make and inexpensive. It can be made for 8-, 10-, 12-, 14-, or 16-quart galvanized pails according to the number of layers in the flock. A 16-quart pail will serve 100 layers. The box is made to provide about 1½ inches of space for insulation between the nearest top edge of the box and the pail. The galvanized iron cover is cut to fit snugly under the rim of the pail and is sloped to carry off any drip water and thus keep the inside packing dry. The bottom of the box is removable to make it easy to pack insulation around the pail or to renew the insulation. When the box and iron cover are completed, the pail is put in place, and the box is turned upside down for packing and molding the straw, excelsior, or newspapers firmly around the pail. The bottom is then fastened in place. The pail can be removed, and the packing will stay in place. With reasonable care, one packing will keep in good condition through the winter season. The 1- by 3-inch boards upon which the hens stand while drinking are placed 4 inches below the top of the pail and 1 inch from the box.

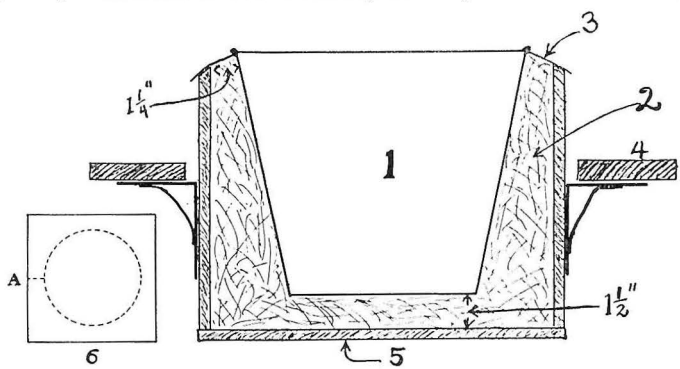

Fig. 8.—Insulated water pail and container

1. 12- or 14-quart galvanized water pail
2. Straw or excelsior for insulation
3. Galvanized sheet iron top to keep insulation dry
4. 1- by 3-inch running board
5. Removable bottom
6. Sheet iron top marked for cutting

Although not generally needed, an electric water heater can be used with the insulated water pail. The one shown in figure 7 consists of a piece of galvanized iron conductor pipe 12 inches long and 2½ inches in diameter with a bottom soldered on to make it watertight. To the bottom end, a 6-inch disk of galvanized iron is attached to keep the heater upright. Then 1 inch of sand is put into the bottom of the heater, and a rubber-covered extension cord and a bulb are inserted so that the bulb rests on the sand. More sand is then added to fill around the bulb and to within 1 to 2 inches of the top of the heater to hold the heater on the bottom of the pail when it is full of water. A galvanized iron cap is carefully fitted on top of the heater and made watertight where the extension cord enters, to keep out any water the hens may flip around, as the heater must be kept dry inside to prevent a short circuit. Carbon filament bulbs (16 to 50 candle power) are preferable and can generally be secured from wholesalers of electrical supplies. Regular electric light bulbs (15, 25, 40, or 50 watts) can be used.

DROPPINGS PITS

New laying houses should be equipped with droppings pits, and laying houses with droppings boards can be greatly improved by the installation of pits. The pits do not reduce the bird capacity of the laying house. When they are installed, and each time the pits are cleaned, 2 to 3 inches of straw or other coarse litter material is spread over the floor below the roosts to protect the floor and permit better air circulation from below and around the droppings in the drying process and thus reduce the frequency of removal of the droppings to four to six times a year.

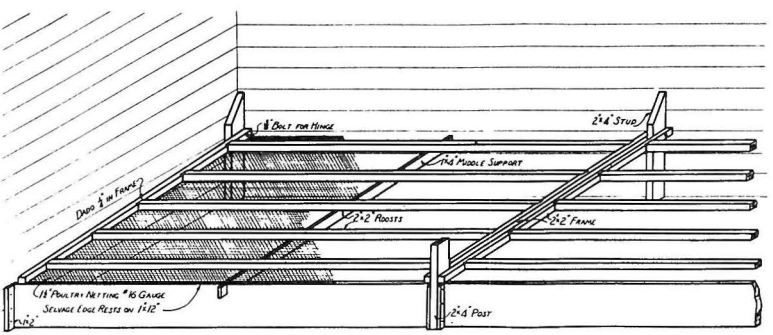

Fig. 9.—A five-roost droppings pit for a laying house 24 feet wide

The droppings pits (fig. 9) designed by the Ohio Experiment Station are adaptable for use in all types of laying and brooder houses. They can vary from a two-roost pit in a long, narrow house to pits 10 feet wide in a wide laying house. Experience with the pits in different types of housing and under a variety of conditions, including hot and cold weather, has demonstrated that they have distinct advantages. Pits require less frequent cleaning, therefore, less labor. Less floor area needs to be covered with litter when pits are used. There are more day droppings in pits and less in litter because of the greater use of roosts over pits during the day.

When layers are inactive, they find better seclusion and less interference from other birds when on roosts than when squatting on the floor. This condition tends to lessen the liability of feather picking and cannibalism.

The liability of layers' being injured by jumping from high roosts is avoided. Some poultrymen claim that low roosts lessen the number of eggs with blood spots.

Ventilation and air conditions are better with the roosts near the floor than with roosts above droppings boards.

Roosts near the floor are better adapted for the use of artificial light than high roosts or roosts above droppings boards.

Pits eliminate the nuisance space below droppings boards.

INSTALLATION

Figure 9 is largely self-explanatory except for a few points. The roosting frame is sloped upward so that the rear of the frame is 3 to 10 inches higher, depending upon the width of the frame, than the front.

Roost frames may be 2½ to 10½ feet wide and 5 to 10 feet long. Table 1 gives the width of pit and number of roosts for different widths or depths of laying houses in which the roosts extend the entire length of the pen.

TABLE 1.—Width of pit and number of roosts for laying houses

Width or depth of laying house	Width of pit from front to rear		Number of roosts parallel to front and rear
	Light breeds	Heavy breeds	
Feet			
16	3 feet 6 inches	4 feet	3
20	4 feet 6 inches	5 feet	4
24	6 feet	7 feet	5
30	7 feet	8 feet	6
36	9 feet 6 inches	10 feet 6 inches	8

The calculations in table 1 are based on 3 to 3½ square feet of floor space and 8 linear inches of roost for each bird of the lighter breeds. For heavier breeds, the calculations are based on 4 square feet of floor space and 10 linear inches of roost per bird. The roosts are spaced 14 inches center to center for lighter breeds and 16 inches for heavier breeds.

It is important that the wire under the roosts be either 1½-inch mesh, No. 16 gauge wire or 1- by 2-inch mesh, No. 14 gauge welded wire. When a width of wire corresponding to the width of the pit is not available, two narrower widths which will give the desired total can be joined with hog rings.

The 1- by 12-inch boards that enclose the front of the pit can be made removable or fixed permanently in place, as preferred. The front of the pit can be made 12 to 18 inches high.

The pits are generally located next to the rear wall. They may, however, be located away from the wall in special instances if sufficient wall space is unavailable.

BOX NESTS

Box nests with each compartment accommodating four to six layers are simple to construct and comparatively inexpensive. They require only half the wall space of single nests. A unit 8 feet long with four compartments or a two-tier unit 4 feet long with two compartments in each tier will accommodate 100 layers. The principal advantages of box nests are that they furnish darkened nest compartments, which tend to prevent interference by other birds, egg eating, egg breakage, and soiled eggs; and that they permit a number of layers to occupy the same compartment, a condition which they appear to like, judging from the way two or more layers often try to crowd into single nests.

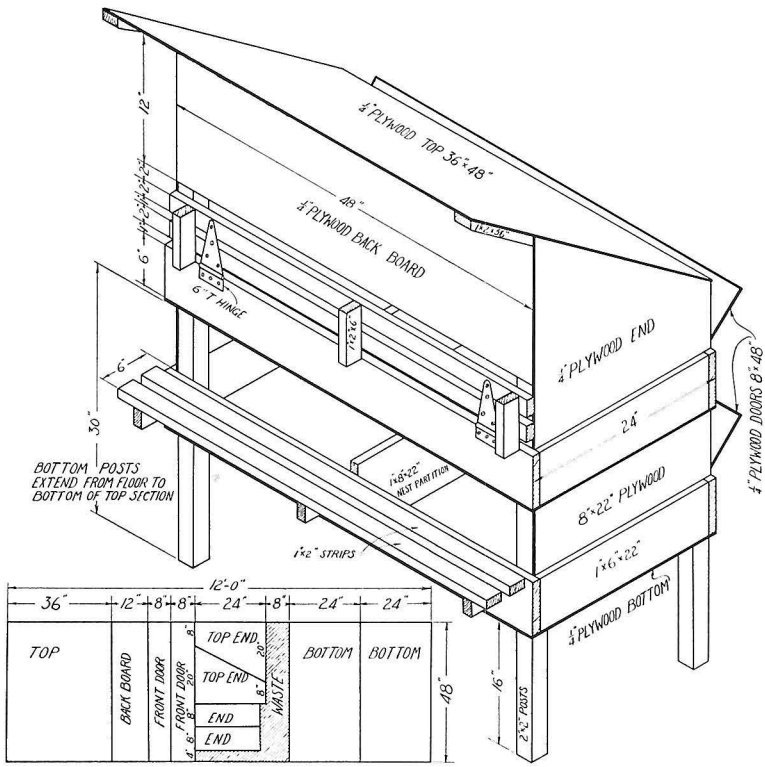

Fig. 10.—Box nests

Box nests are 20 to 24 inches wide, 14 inches high, and made in sections 4 to 8 feet long. The nest partitions are 8 inches high. Figure 10 shows rear and end views of a top and bottom section. The top section merely rests on the bottom one. The bottom of the nests is made of two 1- by 10- or 12-inch boards or of three boards, with the center one made removable for easy cleaning. The sides of nests to retain litter are 6 inches wide. The hens enter from the rear to lay, and the eggs are gathered from the front (rear of fig. 10), which is closed by a board 8 inches wide hinged at the bottom. The nests

are placed with the rear side 8 inches away from the wall or partition, and the sloping top extends beyond the rear of the nests to the wall. The rear entrance runways are two 1- by 2-inch pieces cleated 1 inch apart with 1- by 2-inch cleats which extend 1 inch beyond the inner edge of the runway to the side of the nest to support the runway in a horizontal position. The hinges which are attached to the lower side of the runway are attached to the side of the nest so that the bottom of the runway is even with the top edge of the side of the nest and the hinged runway makes a convenient means of closing the nests. The corner posts of the lower section extend 12 to 16 inches below to serve as legs to support the nest a suitable distance above the floor.

Plywood (¼-inch) or pressed wood can be used for the top, bottom, ends, front doors, and backboard of the top section, as indicated in figure 10. The insert at the lower left corner indicates the amount and dimensions of plywood or pressed wood needed. Plywood or pressed wood makes for lighter weight and ease of construction. The list of framing material and other items needed is:

Top section:

One piece 1 by 6 inches, 12 feet long, for sides and ends
One piece 1 by 8 inches, 2 feet long, for partition
One piece 1 by 2 inches, 8 feet long, for runway
One piece 1 by 2 inches, 8 feet long, for roof cleats and runway cleats
One piece 2 by 2 inches, 7 feet long, for two posts 14 inches long and two posts 26 inches long
Four 6-inch T hinges
Two buttons or screen door hooks and eyes for runway and front door

Bottom section:

One piece 1 by 6 inches, 12 feet long, for sides and ends
One piece 1 by 8 inches, 2 feet long, for partition
One piece 1 by 2 inches, 10 feet long, for runway and cleats
One piece 2 by 2 inches, 10 feet long, for corner posts
Four 6-inch T hinges
Two buttons or screen door hooks and eyes for runway and front door

These box nests with four favorite corners for laying in each compartment are designed to reduce the number of soiled and broken eggs and protect the hens from the needless disturbance often observed in single nests. It is believed that these objects are largely accomplished through the uniform restriction of light and the roominess of these nests.

SINGLE NESTS

The single wall nest may be preferable in some instances, especially for small flocks or where the nests can be located away from the light. These nests can be used with a front entrance, as shown in figure 11, or they can be provided with a rear entrance and closed fronts to darken the nests as previously indicated for the box nests. The advantage of the front entrance is the simplicity of construction and the direct attachment of the nest to the wall or partition by means of screen door hooks and eyes. The principal disadvantage of the open nests is that there is no restriction of the light in the nests unless they are located in a darkened room or compartment. If too much light enters the nests, there may be considerable disturbance of the layers in

the nests and liability of egg breakage by those troublesome birds found in every flock. Too much light in the nests may also encourage egg eating. Nests exposed to light offer less attraction and may encourage birds to lay elsewhere, especially in darker corners on the floor. To avoid floor eggs, the poultryman must provide plenty of nests, 20 to 25 single nests for each 100 layers.

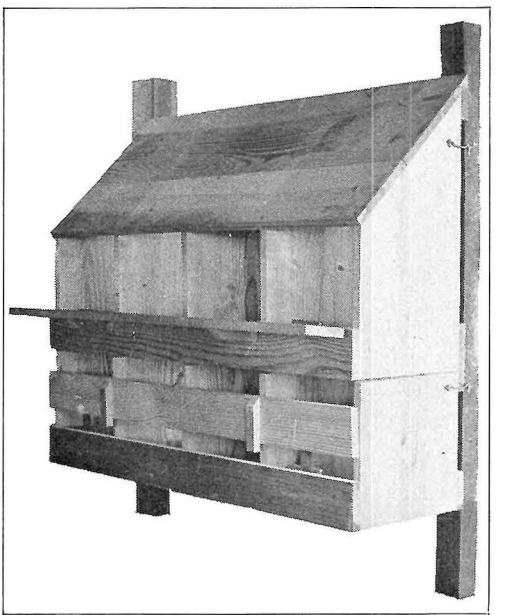

Fig. 11.—Single wall nests

A top and bottom section each of four nests are shown in figure 11. The sections can be made longer, for five to eight nests, according to the wall space available. The nests are 12 inches high and approximately 12 by 12 inches square for Leghorns and 12 by 14 inches for heavier breeds. One, two, or three tiers of nests can be used, according to the number of layers to be accommodated. The top section is sloped from 24 inches in the rear to 12 inches in front to prevent the birds from roosting on top. If hens enter from the rear, the top will need to be extended to the wall or partition. The lower section is flat on top so that other sections can be set on it. The bottom of the nests can be made of wood permanently attached or removable for ease of cleaning, or it can be made of 4- or 6-mesh hardware cloth. The sides of nests and runways are 1- by 4-inch pieces. The runways are hinged so that they can be turned up and held shut by means of a screen door hook and eye to keep the birds out when desired. The 1- by 4-inch runway board is hinged to the side of the nest with 1½ inches of space between. This attachment, with the 1½-inch extension of the 1- by 1-inch cleats under the runways and the end thrust against the side of the nest, makes a rigid support for the runway.

As a rule, the nests should not be located near the front of the laying house where there is too much light or too much exposure to drafts in winter. In many laying houses there is suitable wall or partition space for the nests just in front of the droppings pits.

CATCHING EQUIPMENT

Catching equipment, being more optional than feeding, watering, roosting, and nesting facilities, is often the most neglected. Since catching the chickens can be, and too often is, put off until "tomorrow", suitable timesaving catching equipment is especially important. Neglected culling and selection of birds to be transferred elsewhere or to be sold often mean the onset of disease and loss of birds from overcrowding. In addition, there is a needless waste of feed when cull birds are not promptly removed. Such losses often could be prevented by the availability and prompt use of suitable catching equipment which would make catching and handling the birds a convenient, pleasant task instead of a time-consuming, disagreeable one to be put off as long as possible. There are three essential items of catching equipment which every poultryman should have readily available in the number of units needed to serve his needs fully.

CRATES

Of first importance in catching chickens is the catching crate (figures 12 and 13). Plenty of them are needed to avoid overcrowding of the birds after they are in the crates. They can be placed end to end to crate a number of birds at one time. In connection with this operation, the hinged panels (fig. 14) will be needed. A ready-made catching crate can be secured which will generally be more satisfactory than one made at home. For those who

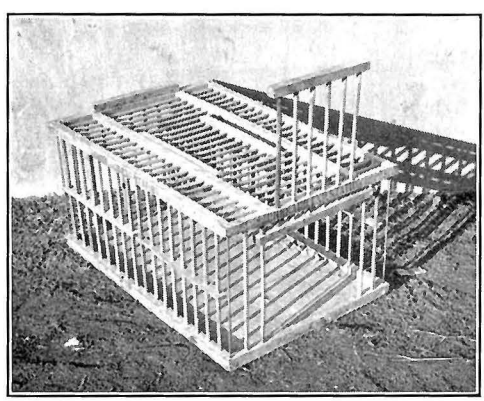

Fig. 12.—A satisfactory ready-made catching crate

wish to make their catching crates, figure 13 shows a satisfactory one and most of the details of construction. The outside dimensions are: width, 24 inches; length, 36 inches; and height, 19 inches. The four corner posts to which side panels and end cleats are attached are 1½ by 1½ inches square and about 18 inches long. The side frames and cleats across each end beneath the floor are 1 by 3 inches. The two end-gates, four top crosspieces, and four up-

right cleats to hold the end-gates in place are 1 by 2 inches. The sides and ends may be enclosed by 1-inch mesh netting or by vertical plaster laths spaced 1 inch apart. Plaster lath will generally be the most satisfactory for enclosing the top. The bottom may be of ½- to ¾-inch lumber or ¼-inch ply-

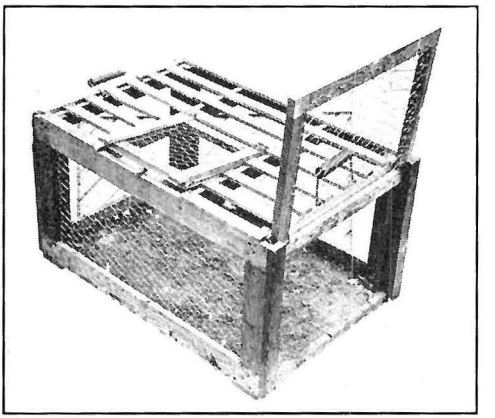

Fig. 13.—A homemade catching crate

wood or pressed wood. The handles can be made of two pieces of broom handle 5 inches long through which a ⅛-inch hole has been drilled or burned. The handles are attached to the crate by No. 9 galvanized wire and wire eyes which pass through the top end cross supports and are clinched on the lower edge.

HINGED PANELS

The importance of hinged catching panels has been overlooked by many poultrymen, possibly because they are so simple and inexpensive to make. The panels shown in figure 14 consist of a long and short panel or frame

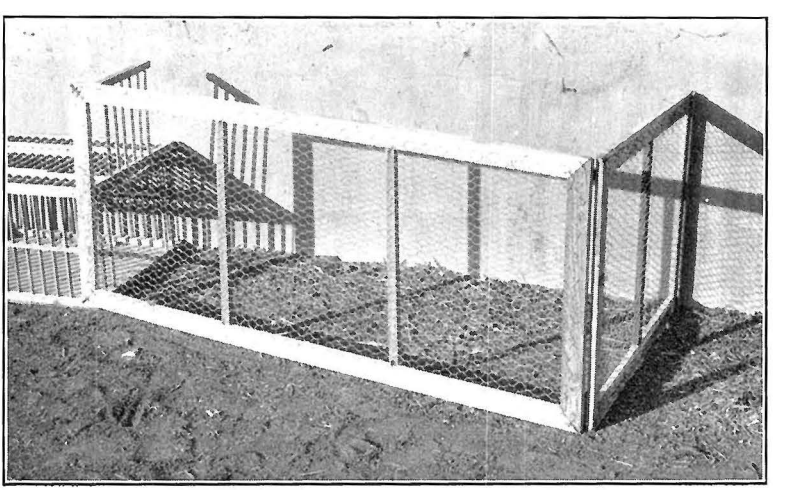

Fig. 14.—Hinged panels for catching chickens

hinged together. The length of the long panel may be from 5 to 7 feet, that of the short panel, 2½ to 3 feet. The width may be 30 to 36 inches. The panels are made of 1- by 3-inch material and covered with 1-inch mesh, No. 18 gauge, wire netting.

With this lightweight, portable panel, chickens of any age can be readily and quickly gathered and held in the corner of the pen for culling or handling for any purpose. No poultryman should be without this simple time- and labor-saving device.

HOOKS

A catching hook should be kept in each laying house and in each pen of 100 or more layers. The never-ending daily task of every alert poultryman is to watch every flock for birds that need to be removed. This important job needs to be done at the moment, and a good catching hook should always be near by. Catching hooks can be made of No. 6 or No. 7 gauge galvanized steel wire. Better catching hooks, however, can be purchased from poultry equipment dealers at a nominal cost.

AN EASY TWO-WAY, SURE-TO-CLOSE PARTITION DOOR

When the brooder or laying house is divided into pens, partition gates or doors are necessary. Such doors should be light, durable, inexpensive, easily opened from either side by pressure (which means no latch), and made to shut securely to prevent mixture of the birds in adjoining pens. Figure 15 shows a door designed to meet these requirements. The door was in the half-open position when the photograph was taken. When released, the weight always holds the door securely closed.

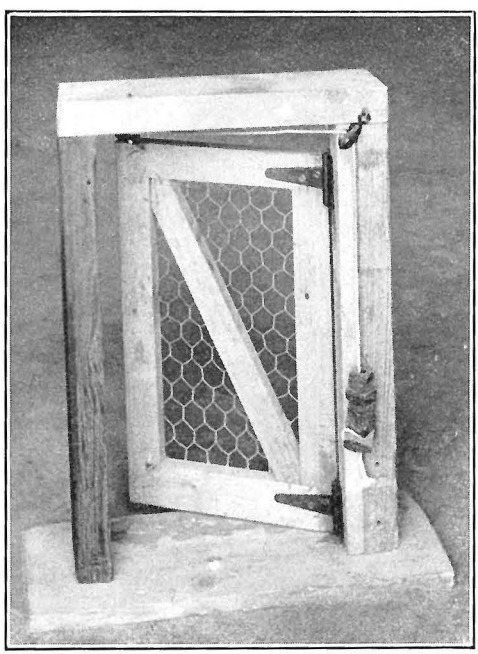

Fig. 15.—A two-way self-closing partition door

The frame of the door is made of 1- by 4-inch material with a 1- by 3-inch diagonal brace. The hardware consists of two 3-inch T hinges, two 1-inch awning pulleys, sash cord, a 1-inch heavy screw eye (large enough to receive the sash cord), and a weight sufficient to close and hold the door closed. The usual dimensions of the door are 30 to 36 inches wide and 6 feet high, but they can be varied in accordance with special requirements. It is generally advisable to have a board 6 to 10 inches wide across the bottom of the doorway so that the bottom of the door will swing free of the floor litter.

TIME-SWITCH DEVICE FOR LIGHTING THE LAYING HOUSE

When artificial light for layers is desired, it is generally morning light. The lights can be turned on to provide it by an alarm clock device and turned off later by the caretaker. A simple, dependable device, shown in figure 16, for switching on the lights can be made of an alarm clock with a base mounted upon a block 2 inches high, 3 inches wide, and 4 inches long placed crosswise of the end of the baseboard, which is a 1- by 4-inch piece 29 inches long. Another block 1½ inches high to catch the arm above when it falls is attached 9 inches from the clock end of the baseboard. The push-button switch is 14½ inches from the clock end and 1 inch from the edge.

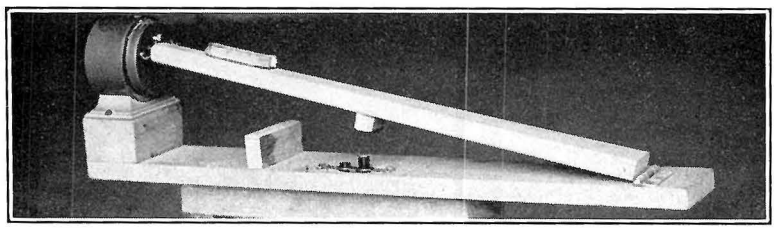

Fig. 16.—Time-switch device for morning lights

The clock lever, or arm which engages the alarm winding key of the clock, is 23 inches long and tapered from 2 inches on the hinge end to 1 inch on the clock end, into the center of which a No. 10 round-headed screw 1½ inches long is put so that it projects a half inch. The screw end of the arm is placed in proper position on the winding key of the alarm; the other end is fastened securely to the baseboard by means of a 2¾-inch T hinge. When set for action, the screw rests upon the winding key of the alarm until the alarm goes off. When the alarm goes off, the weighted arm drops onto the lighting (ON) switch button (or a knife switch) and switches on the lights. The weight on the clock lever may be of lead or iron; it must be heavy enough to push on the switch when the lever falls. The weight can be placed closer to or farther from the clock end of the lever as may be necessary to operate the switch properly. The block attached to the underside of the arm is 1½ inches long and extends three-fourths of an inch below. It is padded with a 1/16- to ⅛-inch pad of leather or rubber to cushion the shock when it strikes the switch button.

The device can be located where desired by attachment to brackets or a shelf.